



Rationale and justification

- Thailand's RPP document and the global REDD+ Partnership of which Thailand is a signatory
- Opportunity to advance many associated science and sustainable land use challenges

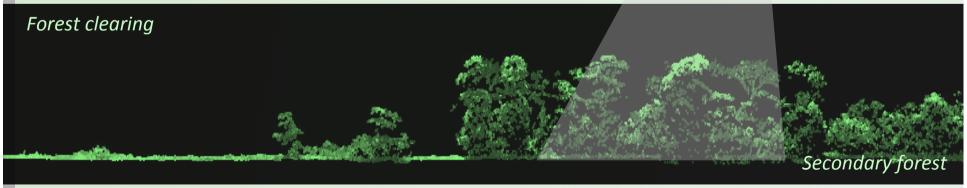






Overriding Project Goal

- Thailand develops the capacity at the national level and, in one region, at the sub-national level to measure and monitor change in forest carbon
- RD 5-421
- Take advantage of the full range of emerging forest carbon financing and benefit opportunities





Project Implementation Principles

- Applying technology to natural resource challenges
- Community forestry
- Respect the interests of diverse stakeholders in all aspects of the project
- Build on existing knowledge base both globally and especially in Thailand





Project Implementation Principles

 Work with appropriate partners to maximize synergies, efficiency, and effectiveness











Enhancing the Economics of Biodiversity and Ecosystem Services in Thailand / South-East Asia (ECO-BEST)







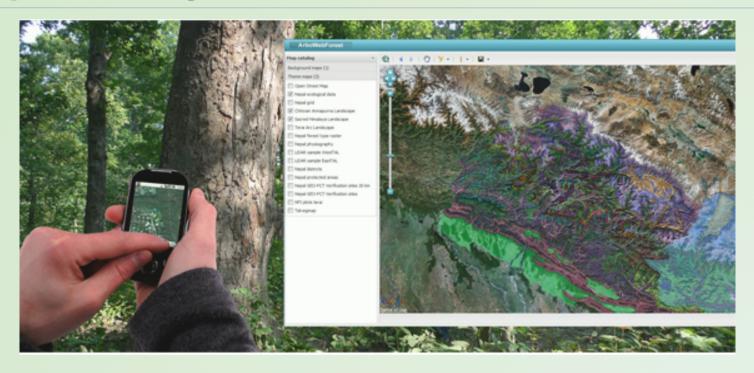












- Thailand establishes a high-resolution (IPCC Tier 3) nation-wide forest carbon base map
- Permanent forest carbon monitoring system and web-based tools





- Using airborne LIDAR (Light Detection and Ranging) technology.
- Successfully used in the Amazon

 Carnegie Department of Global
 Ecology, Stanford University.



theguardian

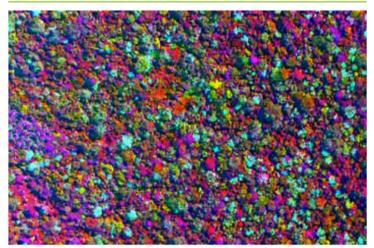
News | Sport | Comment | Culture | Business | Money | Life & style | Tra

Environment Amazon rainforest

Amazon rainforest mapped in unprecedented detail

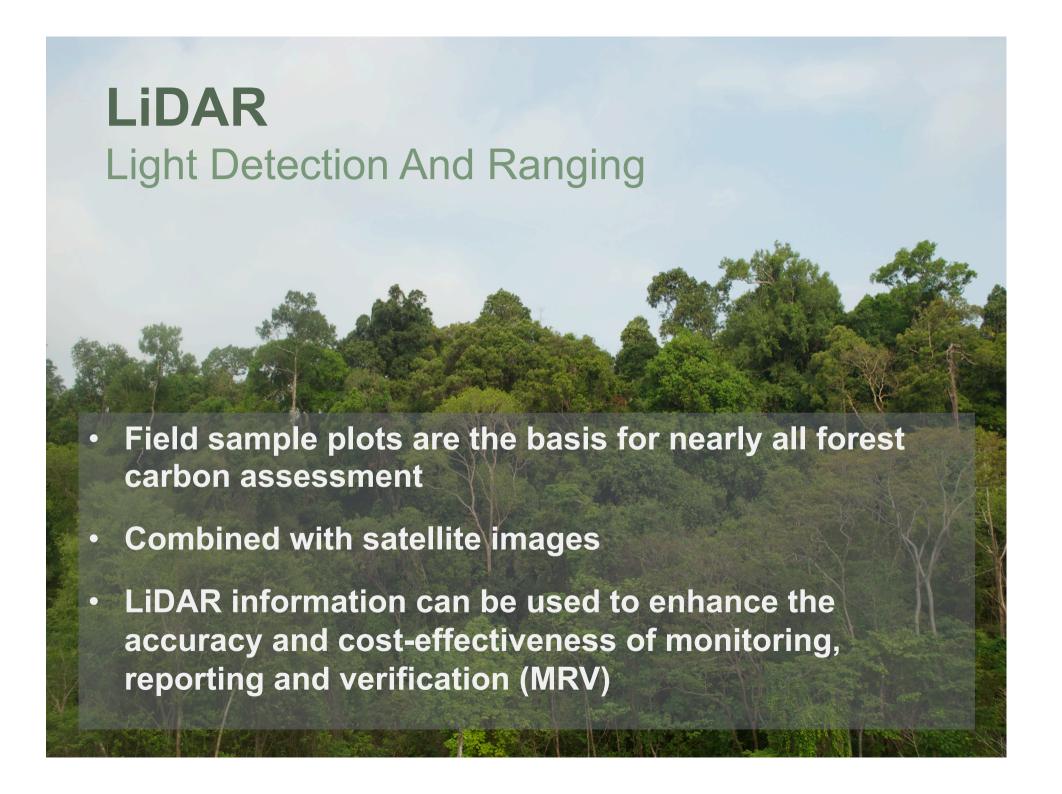
Scientists record Amazon's structure and biodiversity by bouncing laser beams off forest 400,000 times per second

Dan Collyns Madre de Dios, Peru guardian.co.uk, Friday 27 January 2012 12.17 GMT Article history



An aerial image of the Amazon rainforest taken by tropical Greg Asner and his team. Photograph: Carnegie Department of Global Ecology/Stanford University

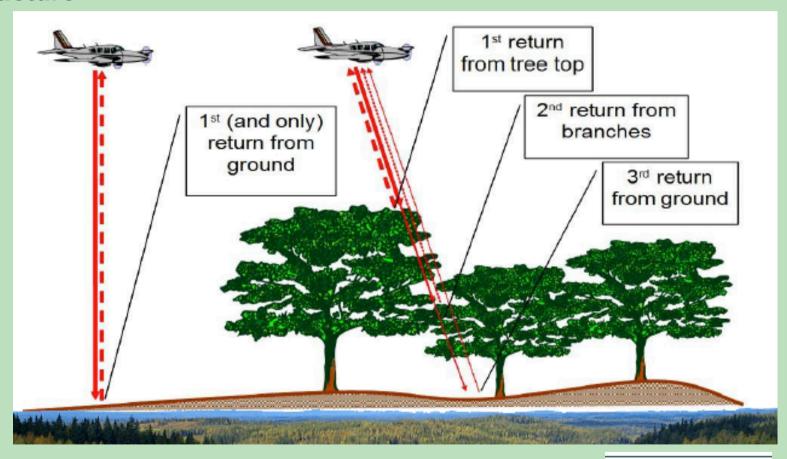
http://www.guardian.co.uk/environment/2012/jan/27/amazon-rainforest-map-biodiversity-detail



LiDAR

Light Detection And Ranging

Very accurate measure of ground topography and forest height & structure





Information and data management

- All data processed in Thailand
- In-country capacity for all aspects of project.
- All data collection and analysis conducted in partnership with Thai Government partners.
- Concerns of partners considered and integrated into every aspect of the project



Specific Objective 1 – Progress to date





Nation-wide forest carbon base map & forest carbon monitoring system

Key challenges

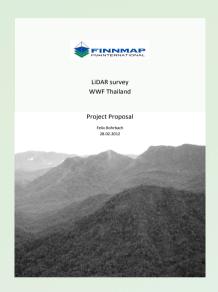
- Building understanding of the benefits of LIDAR
- Scaling up to a national level
- LIDAR / field sample logistics

Progress against targets

- Identifying partners and roles
- Inventoy LIDAR service providers

Current priorities

- Finalizing partnership agreements
- Mobilizing LiDAR and field survey work

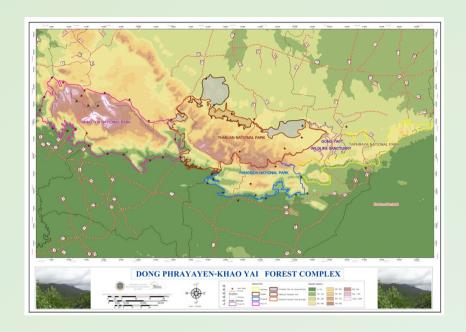




Point Density	1.0 (Nadir) – 1.6 (Average)
Field-of-View	40 degrees
Full Swath Width	874m
Side Overlap	20%
Flight Altitude (above ground)	1200m
Flight Speed	120knots
Height Accuracy	0.5m



- Pilot project Project
 Design Document
 (PDD) for a sub national REDD project
 - High conservation value forest and forest recovery areas
 - Proposed site; Dong Phayayen Khao Yai Complex
 - Threats to WH status
 - UNESCO WHC recommendations







Specific Objective 2 – Progress to date

Pilot project - Project Design Document (PDD) sub-national REDD project

Key challenges

Meaningfully linking with National REDD readiness process (RPP)

Progress against targets

- Advanced negotiations with government on REDD pilot in DPKY landscape.
- Key partnerships formed
- Preliminary carbon assessment conducted
- Preliminary co-benefit assessment conducted

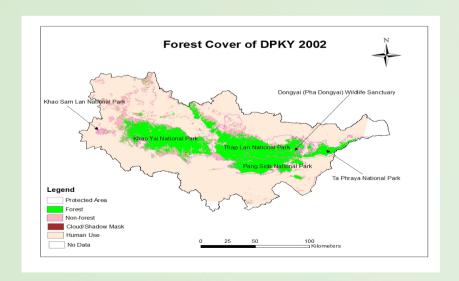
Current priorities

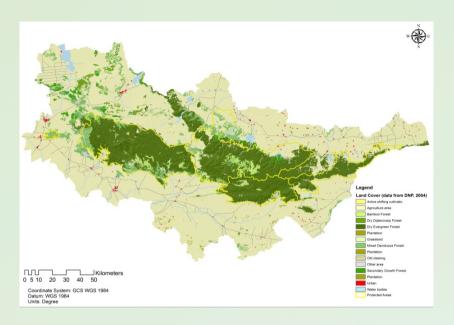
- Preliminary project area carbon context and opportunity assessment
- Consultations with stakeholders about Pilot Project Design Document (PDD)

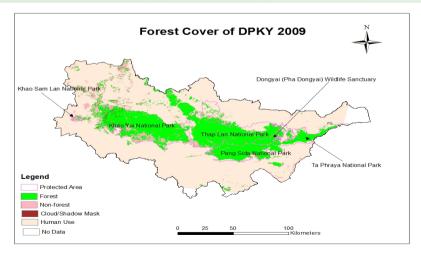


Pre-feasability study; Dong Phrayayen Khao Yai Forest Complex

- Completed in June 2012
- Analaysis of key socio-economic data
- CLASlite analysis for the complex
- A time series analysis was done comparing two time periods, 2002 and 2009 for the DPKY









Sufficient capacity is developed among multiple stakeholders to effectively utilize and benefit from Components 1 and 2.





LIDAR scanner and high-speed computer



Sufficient capacity is developed among multiple stakeholders to effectively utilize and benefit from Components 1 and 2.

Key challenges

Communicating the role and value of LIDAR in carbon assessment

Progress against targets

- Series of bilateral meetings with key government partners
- Capacity mapping of stakeholder groups
- Key training opportunities identified

Current priorities

 Capacity building roadmap developed with the Thai Government partners at various levels.



- Knowledge, skills, experiences, and lessons learned are transferred to other countries
- Accelerate development of REDD-related technology and capacity



WWF Carbi regional workshop, Hoi An, Vietnam, February 2012



WWF TREEMAPS & WWF Nepal meeting with REDD Forestry and Climate Change Cell, Kathmandu, Nepal, March 2012



Knowledge, skills, experiences, and lessons learned are transferred to other countries in the region and internationally

Key challenges

- Establishing and maintaining a robust REDD network in the region both internal and external to WWF
- Broadly sharing lessons learned

Progress against targets

- Establishing relations with Forest Resource Assessment (FRA)
 Nepal & WWF Nepal Forest Carbon Project
- Established working relations with Carbi (Vietnam/ Lao PDR) and Xe Pian (Lao PDR)

Current priorities

Convening a regional workshop regarding REDD readiness





Is the TREEMAPS approach transferrable to other countries?

- 10 months into project
- Many key issues common for REDD+ projects anywhere
 - Land tenure issues
 - Safegaurds (e.g. biodiversity conservation, socio-economic impacts)
 - Carbon assessment / MRV challenges
 - Payment structures
 - · Co-benefits
- TREEMAPS has strong potential to provide solutions to global REDD issues



